*Department of Defense—U.S. Navy*
*Space and Naval Warfare Systems Center, San Diego (SPAWAR)*

## Micro-displays

Dr. Stephen Russell invented a novel, high performance micro-display that allows high performance microelectronic circuitry within and adjacent to a transmissive liquid crystal display to be fabricated. The result is a high resolution and high brightness display that eliminates the need for millions of interconnections between the display and its control circuitry. Dr. Russell's technology offers improved imaging and video in virtual presence applications for war fighter and emergency service personnel, as well as in advanced devices such as hand-held computers and cellular phones.

*Dr. Stephen Russell*

To transfer the technology, Dr. Russell used an innovative process that formed a coalition of government and industrial partners. Subsequently, the Center entered into a Cooperative Research and Development Agreement (CRADA) with Proxima Corporation to market the technology. A second CRADA was established with Optron Systems, a display and component manufacturer. Both CRADAs resulted in licensing agreements for Dr. Russell's invention. In addition, Radiant Images—a spinoff company of Optron Systems—will produce the first commercial version of the micro-displays within the next year.

The initial beneficiaries of the technology will be the Department of Defense and emergency service personnel. As the technology becomes commercially available, it will have the greatest impact on portable information technology devices.